

PHIMS 3.0

Public Health Issue Management System

PHIMS 3.0 User's Manual

A Step-by-Step Guide to Entering and Managing Communicable Disease Data

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I. BACKGROUND

This step-by-step guide to using the PHIMS 3.0 system is designed to facilitate data entry and data retrieval, and to describe the overall process of case management. It is recommended that a PHIMS user read through this document to get an overall understanding of the system and then use it as a resource for detailed case entry inquiries. We have tried to be comprehensive in detailing the new version of PHIMS 3.0 and emphasizing key points that are essential for complete and accurate data entry.

This manual is designed for the Local Health Jurisdictions (LHJs) and staff that are involved in case investigation, data entry, analysis, and overall management of data for their county. Any feedback regarding the new PHIMS 3.0 system and the usefulness of the User's Manual will be extremely beneficial in improving and sustaining communicable disease surveillance.

Introduction

The launching of PHIMS version 3.0 took place on March19, 2007. Feedback from the PHIMS Users' Group was integrated into the new version to provide a system for convenient data entry. The appearance of the PHIMS data entry screen closely matches the forms for Notifiable Conditions. In this new version, **most** of the information may be entered onto the Data Entry screen without the need to go to separate screens for data entry. This hands-on guide walks you through the process of logging on, entering a communicable disease case report to the PHIMS system, reporting it to DOH, and retrieving the data. It will also introduce you to other aspects of the PHIMS system such as creating reports and exports. Throughout the manual, there are notes presented in boxes with special emphasis on specific areas of data entry that have caused some confusion in the past.

Getting Started

The data steward in your county must submit a request to DOH Informatics to create an account for you. Once you have completed the application process to become a PHIMS user, you will be sent a digital certificate that will be a unique key to be used only by you. A software CD that will accompany the digital certificate should be loaded on to your computer. A password will allow access to the PHIMS system. Initially, you will be in training until you successfully have entered five fictitious cases as part of the Quality Assurance (QA) protocol. The process of registration, QA case entry, and the final application onto the PHIMS production will be facilitated by the Office of Informatics and the Office of Communicable Disease Epidemiology at the Washington State Department of Health. Any questions regarding this initial process can be directed to the Office of Informatics.

Once you receive the digital certificate and are ready to begin:

- 1. Plug your digital certificate into your computer's USB port.
- 2. Open Internet Explorer (other browsers are not guaranteed to work).
- 3. Type http://transact.wa.gov. Click on my Transact Account.



4. This opens the Client Authentication window. Multiple names will appear if there are multiple PHIMS' users on that computer. Select your name and click OK.



5. Enter your User Pass Phrase (contact Informatics if you are unable to recall your pass phrase) and click OK.



6. The Transact Washington window (below) displays the services to which you currently have access. DOH-PHIMSTNG link (PHIMS training site) is to be used for QA case entry. DOH-PHIMS is to be used to enter real cases, edit cases, and submit cases to DOH. DOH-PHIMS opens to the Case Action screen, which displays all of your currently active cases ("your" cases are cases initiated by you or reassigned to you by a co-worker).



What PHIMS 3.0 Has to Offer: Main Menu Bar

There are seven dropdown menus that appear on the Main Menu Bar displayed across the top of every screen in PHIMS: Case Management, Reports, Export, Administration, Policies, Help, and Log Out.



Case Management

New Case. To create and enter data for a new case.

Find Case. To search for existing cases.

<u>Case Action</u>. To return to the Case Action screen.

Reports

Administrative Reports. Used by the PHIMS administrator.

Individual Cases. Information for individual case.

<u>Case Management</u>. These reports allow you to get an overview of your cases or your agency's cases, as well as any actions performed on them.

Summary Reports. An aggregate report or summary of data from all the cases in PHIMS.

<u>View Requested Reports</u>. To view and save a report.

Export

Core Export. Allows export of case data for any combination of conditions.

<u>Surveillance Export</u>. Allows export of case data by disease and one or more specific areas of interest for in-depth data analysis.

<u>View Requested Exports</u>. To view and save an export.

Administration

<u>DOH User Administration</u>. Used by PHIMS administrators to keep track of PHIMS users' roles and security rights in the system.

<u>Utilities</u>. User Security Rights – a screen displays what security access you have (i.e., county, conditions, role/privileges).

<u>Refresh User Security Rights</u>. If the DOH User Administrator has updated your security access this selection allows you to refresh the rights without logging out of PHIMS.

Policies

<u>Notifiable Conditions</u>. Redirects to the DOH website with guidelines and reporting forms for all the Notifiable Conditions for the State of Washington.

Help

<u>Online Help System</u>. Will provide a screen-by-screen introduction to PHIMS, which is being updated. Also has contact information for questions and inquiries along with the website for downloading Notifiable Conditions forms.

<u>User Dictionary</u>. Detailed information about each data element for every condition and every section of the PHIMS 3.0. An Excel file with information on what fields are asked by condition, if they are case-defining, and what are the sub-details for those observations.

<u>Data Issues</u>. Cases were moved from Communicable Disease Epidemiology Section COMDIS database to PHIMS in May 2005. Issues related to COMDIS cases and the data conversion may impact data analysis conducted on data extracted from PHIMS. This document includes key points about the data conversion, a more detailed explanation, and a summary table.

Release Notes. Description of changes introduced in each released version of PHIMS.

<u>About</u>. Contact information for Informatics and Office of Communicable Disease Epidemiology for questions regarding the PHIMS system and data entry inquiries. For sending emails, just click on the blue highlighted name.

Log Out

This is the only secure way to log out of PHIMS. Close the browser and remove the digital certificate and keep it secure.

II. CASE MANAGEMENT

Once you log on to your transact account, you will automatically be taken to your Case Action screen, which displays all the current active cases. Other features of case management include creating new cases and finding previously entered cases.

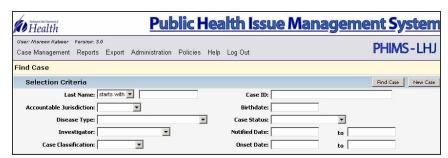


New Case

This tab will take you to the screen for beginning data entry on your case. A full description of the data entry process is presented in the next section.

Find Case

This function enables you to find and view any case that you have permissions to view in the PHIMS system. A case can be searched by the following criteria: last name, county, condition, investigator, case classification, case ID, birth date, case status, notified date, and onset date. The more information you search by, the quicker the system will respond to the search criteria and fewer records will be retrieved.



If you transferred your case to another investigator or changed the case status from "Investigation in Progress" to "Complete," your case is no longer visible on your Case Action screen. They can also be retrieved by going to Find Case. The maximum number of cases returned per search is 75. For that reason you should not use this function for case counts. Use Reports or Exports for that purpose. Narrowing down the search will be helpful for locating the case.

Case Action Screen

The Case Action screen lists your active cases that you are currently working on. No two users' Case Action screens are alike. Two conditions are necessary for a case to be listed on a Case Action screen:

- 1. the case needs to be active (also known as "open"); and
- 2. the case is assigned to you.

There are two ways to get to the Case Action screen, by selecting "Case Action" from the Case Management dropdown on the main menu bar or by clicking on the PHIMS-LHJ colored logo in the upper right corner of the screen (see arrows below). PHIMS is a dynamic system so changes can happen after your query is requested. The query will show when the data was retrieved.



On the Case Action screen, records can be sorted by case ID, patient name, condition, onset date, case classification, age, and age unit. The case ID is a 13-digit number designating the location and date of the case. For example, a case ID of 53033-0703-0001 shows the state code (530), the FIPS code (33), the year and month (0703), and the sequential order by county, not by condition. This ID does not change even when it is transferred to another county. It maintains its integrity by staying the same. These cases can be sorted by any of the subheadings on the tab by ascending or descending order by clicking on the subheading.



III. DATA ENTRY – GETTING DATA INTO PHIMS 3.0

Create a New Case

In gathering information on the case, the first source of information may be from a lab or a health care provider. If you are receiving information from a lab, for instance, enter the pertinent information from the lab slip to the reporting form and then to the Data Entry screen. After receiving positive lab results, you contact the health care provider reference on the lab slip to gather more clinical information on the case. Next, you contact the patient to collect more information on exposures. Enter the information as you go along.

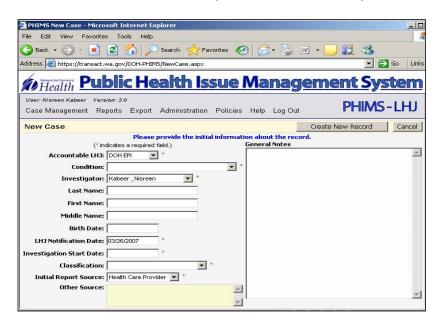
A list of Notifiable Conditions that are available in PHIMS can be found in Appendix 1. Information regarding the reporting and investigation guidelines for a Notifiable Condition are provided by DOH on its Notifiable Conditions website

(http://www.doh.wa.gov/EHSPHL/Epidemiology/CD/default.htm) or by selecting Notifiable Conditions under the Policies heading in the main menu bar on the PHIMS screen. This website provides national guidelines developed by CDC on case definition for probable or confirmed cases, laboratory guidelines for testing of specimens, and description of disease condition.

Some case investigators can enter directly onto the PHIMS Data Entry screen or use a paper case reporting form to collect information during initial case investigation and then enter information from the paper form into the PHIMS system.

Steps to creating a new case:

- 1. Once logged onto PHIMS, click on PHIMS LHJ.
- 2. Go to the Case Management tab on the main menu bar and select New Case.
- 3. Screen will appear for the investigator/data entry staff to enter the initial information regarding the record.
- 4. Most fields on this screen are required and are indicated by an asterisk on the right of the field. You cannot create a case if any of these required fields are left blank.
- 5. You cannot use the enter key, but will need to use your mouse to select a button.



- <u>Accountable LHJ</u>. Select from the dropdown menu the county for which the case was reported. The screen defaults to your county for Accountable Jurisdiction.
- <u>Condition</u>. Select from the dropdown menu the condition that is under investigation.
- <u>Investigator</u>. Select your name from the dropdown menu. The screen defaults to your name for Investigator. PHIMS also allows you to reassign a case to another investigator see "Reassigning a Case" in this manual.
- Enter <u>last name</u>, <u>first name</u>, and <u>middle name</u>. If this person is already in the system, either as a duplicate or for another illness, it can save you some steps in entering patient information. Make sure you are not entering a duplicate case. Notice this is not a required field. If not completed, the word "unknown" will appear in the last name field on the Case Action and Find Case screens.
- Enter <u>birth date</u> in the format MM/DD/YYYY.
- Note: Always remember to enter the date as M/D/YYYY or MM/DD/YYYY, otherwise an error message will appear as an exclamation mark next to the asterisk.
- <u>LHJ Notification Date</u>. Date LHJ public health professional is made aware of report via phone, fax, or mail. Although this date automatically defaults to today's date, it should be changed if the notification of the case came in at an earlier date.

- <u>Investigation Start Date</u>. Date first public health action taken to investigate or intervene in a case. For example, the date that a case investigator first picks up the phone to call a health care provider or patient for information (regardless of success reaching anyone) would be the investigation start date.
- <u>Classification</u>. Select from the dropdown menu whether the case is suspect, probable, confirmed, not reportable, or ruled out.
- <u>Initial Report Source</u>. Did the county receive report from a health care provider, health care facility, laboratory, public health agency, or some other source? If you select "Other", a field will open up for entering that report source.
- <u>General Notes</u>. This is the first of many note fields available in PHIMS. Once entered, notes **cannot** be overwritten or erased. Errors must be addressed by adding subsequent notes. General notes can be added or viewed in the Data Entry screen or in the section dropdown list.

Once the initial information regarding the case is entered, then click on "Create New Record" on the top right hand corner of the screen. If a similar name is already in the system, you will be alerted. If this is not the same person, then click "Create a New Case for a New Person" tab. Upon verification, if the same person is in the system, check to see if the case was already entered by clicking on "Cancel (Go to Find Case)." If the same person is in the system, but this is a new case investigation for that person, then click on "Create a New Case for THIS Person."



Data Entry Screen

The Data Entry screen is designed to match the Notifiable Conditions reporting form for more convenient and accurate data entry. The Data Entry screen is one long scrollable screen, with tabs to show or hide all or selected fields. The banner at the top of the screen provides key case information (disease, jurisdiction, case ID, notification date, onset date, investigator, classification). The dropdown menu on the upper left, the PHIMS Section dropdown menu, allows navigation to other sections/pages of an individual case. Case-defining data elements are indicated in bold type as they are on the forms. Font sizes may be small, but can be adjusted by going to the view tab on the very top of the Internet Explorer page. From the view tab, you will need to select text size and then select from the options.

There is a toolbar to the right side of the screen with a Save LHJ button. When data is changed, a message box will show up to remind you to SAVE. This toolbar scrolls along as you enter data on the screen. Save the data entered frequently to avoid losing data (*see note below). The "Front Page" (corresponds to the *front* page of the reporting form), "Back Page" (corresponds to the *back* page of the reporting form), and "DOH Fields" (DOH Communicable Disease Epidemiology Section for data entry) buttons will help you navigate quickly to different sections of the Data Entry screen. There is also a button you can select to Show All Observations or Hide All Observations.

* If your digital certificate software is configured to timeout at 240 minutes, PHIMS will not timeout until 45 minutes of inactivity. Typing is not counted as activity.

Helpful hints for data entry:

- 1. Clicking on the Show All Observations on the toolbar will make all sections visible and may easily facilitate data entry and prevent the data enterer from missing any sections.
- 2. When entering dates, enter in the format M/D/YYYY or MM/DD/YYYY.
- 3. It is quickest and easiest to avoid using your mouse and instead tab down through the questions. To choose an answer from a dropdown menu, key in the first letter of the item you want to select. To check a checkbox, hit the <space> bar.
- 4. It is best not to use the scroll feature on your mouse. If you are in a dropdown menu, it could change your answer and you may not realize it.
- 5. Be sure to click the SAVE LHJ button in order to save the data entered.
- 6. It would be helpful to mark sections that you have already entered so you are aware of what remains to be entered.

Data Validation is performed on Birth Date, Notification Date, and Investigation Start Date. Data validation will catch mistakes such as onset date before birth date. There are two ways that data validation errors will be indicated.

- A symbol will appear next to the field with the error. A tool tip will indicate what the error is.
- A message box will pop up listing any errors when you try to save the data.

If you receive an error indicator, return to the field and

- Enter data if the field is required or
- Change the entry.

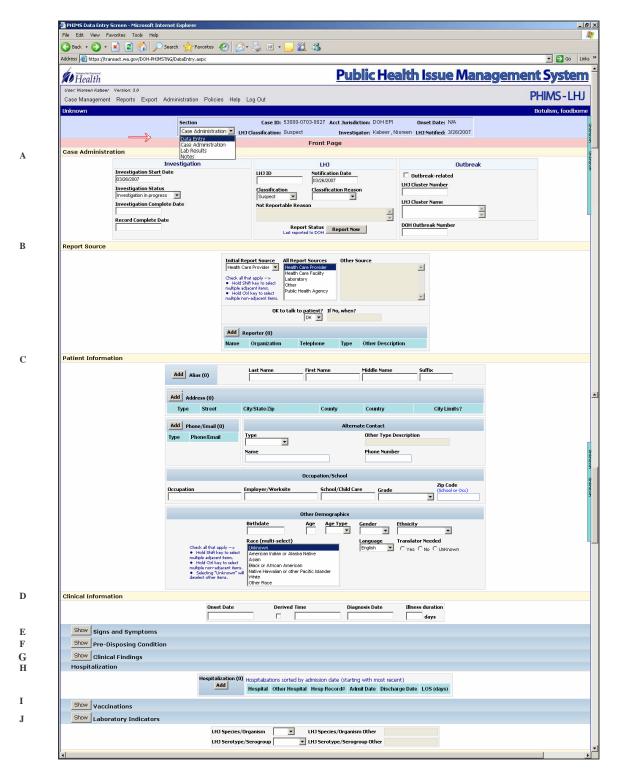
Common errors will be:

- An incomplete or poorly formatted date. A 4-digit year is required.
- An incomplete or poorly formatted telephone number. Area code is required.

You will not be able to save the case until the error is corrected.

A view of the data entry screen is presented in the next figure. Notice the alphabetical order of the different sections on the screen (see figure below) that correspond to the sections on the paper forms. Descriptions of these sections follow on the proceeding pages.





A. Case Administration

Investigation

<u>Investigation Start Date</u>. This is the date when the first public health action was taken to investigate or intervene in the case. This date should be before or on the Record Complete Date.

<u>Investigation Status</u>. Selections from the dropdown menu include "Complete," "In Prog but CDC Reportable" (i.e., core case elements have been entered), "Investigation in Progress" or "Unable to Complete" (when no further information on the case can be collected).

<u>Investigation Complete Date</u>. Date when last action was taken by epi/public health professional on the case. This is the date when the investigation is completed and the investigation status is classified as "Complete." This date should be after or on the LHJ notification date.

<u>Record Complete Date</u>. This is the date when the forms have been completed. Date record is designated as closed (may not be closed until additional lab data collected, contacts documented, etc.). This date should be after or on the investigation start date.

LHJ

<u>LHJ ID</u>. An identification number uniquely assigned to each case in your LHJ.

<u>Notification Date</u>. The date when the LHJ public health professional was notified of the report (via phone, fax, or mail).

<u>Classification</u>. Will be determined based on clinical, laboratory, and epidemiologically-linked criteria. Case-defining guidelines are available for each disease on the Notifiable Conditions website. A case may be designated as confirmed, suspect, probable, ruled out, or not reportable. It is important to update the case classification as new information on the case becomes available. The PHIMS automatic reporting feature relies in part on accurate classification information.

Note: The classification status of "Not Reportable" should only be used for conditions such as animal bites that are not reportable to the state, not cases that have been ruled out by lab testing or a lack of meeting clinical criteria.

Note: Suspect cases are reportable only for immediately Notifiable Conditions. Probable cases are reportable for certain Notifiable Conditions only (see Surveillance and Reporting Guidelines on Notifiable Conditions website). Confirmed cases are always reportable.

<u>Classification Reason</u>. Selections from the dropdown menu include "Clinical Only," Epi Link and Clinical," "Lab and Clinical," and "Lab Only." Please complete this section. It is important for indicating that the case has met the case definition for that disease for it to be considered probable or confirmed.

Outbreak

Outbreak-related. This box should be marked if the case was related to an outbreak.

LHJ Cluster Number. If the case is part of an outbreak, the LHJ will assign it a cluster number.

LHJ Cluster Name. LHJ assigned name.

<u>DOH Outbreak Number</u>. This field is shared by the LHJ and DOH CD Epidemiology.

Note: If there are indications that an outbreak is occurring, DOH may request LHJs to submit all cases of a particular condition within a specified onset date range by clicking the "Report Now" button. This will allow DOH to assess the potential outbreak across county lines.

B. Report Source

<u>Initial Report Source</u>. The initial reporting of a case could be from a health care provider, health care facility, laboratory, public health agency, or other source. If "Other" is selected from the dropdown menu, a field will open up for entering that report source. To select multiple reporting sources that are adjacent to each other, press the shift key and select. If you want to select multiple sources that are not adjacent to each other, you will need to press the Control (Ctrl) key and then make your selection.

OK to talk to patient? If no, when? Possible reasons for not being able to talk to the patient may be that the case is a minor, incapacitated in such a way that they are unable to communicate about the condition, or the physician hasn't yet contacted the patient.

<u>Reporter</u>. Contact information for the reporter can also be entered by providing the reporter and organization they belong to, their telephone number, whether they were a primary health care provider or other reporter, and then specify what type of reporter if "Other."

C. Patient Information

<u>Alias Name</u>. Any alternate name that the case has used in the past such as maiden name, adopted name, or given name.

<u>Address</u>. The address for the case; it may be primary or secondary home address, work address, employer address, mailing address, or homeless. It will also ask if the address is within city limits.

Phone/Email. The phone number and email of the case is to be entered here.

<u>Alternate Contact</u>. If the case has provided contact information on a parent or guardian, spouse, or other contact, that would be entered here.

Occupation/School

Occupation. Occupation of the case.

Employer/Worksite. Employer and place of employment of the case.

School/Child Care. If the case is a child or adolescent, then the school or child care they attend.

Grade. The grade the child or adolescent attends.

Zip Code. The zip code for the work place, school, or child care center.

Other Demographics

Birth date, age, age type, gender, ethnicity, race, language, and whether a translator was needed are all self-explanatory variables. More than one selection can be made for race by pressing either the

Note: Age needs to be calculated exactly from the date of birth to the date of onset, not the date of diagnosis. The age should be exact and not rounded to the next year. If the date of onset for a case is, for example, five days away from their birthday, **do not** round off to their age at their next birthday. This slight rounding off will result in an incorrect age and will cause the age to be classified as "unknown" by CDC.

shift (for adjacent choices) or control (for non-adjacent choices) key. Please be accurate and complete in the demographic section. Race and ethnicity are often left blank and these are important data elements for understanding the population that is affected by communicable diseases.

D. Clinical Information

Onset Date. Date of onset of first disease-specific symptom. Although this field is a required field, chronic conditions, such as Chronic Hepatitis B and C do not need onset date.

Derived. Imputation of onset date based on available data if the exact onset date is unknown.

Examples of derived date in absence of actual onset date:

- When onset date is not known, used derived onset date to give the best possible estimate of the onset date.
- Consider how the date will be used. Most likely the derived onset date will be used for
 descriptive epidemiology (month and year of onset) and day is less critical. It shouldn't be a
 huge issue for descriptive epidemiology if a few cases are off by one. Since derived date is
 inherently an estimate, it should not be used to calculate specifics such as exact number of
 days between onset and testing.

Possible sources of derived date from case patient:

- Case patient provides an approximate date such as "three days before I was hospitalized" subtract from known date.
- Case patient says "three or four days ago" subtract smaller number from interview date.
- Case patient provides week of onset use mid-week date.

Possible sources of derived date from other records:

- Medical records provide an approximate date such as "two weeks ago" subtract 14 days from date of medical visit.
- Lab collection date is only information known subtract typical incubation period.

Note: If talking to the case, try to identify the month of onset. Be particularly careful in January to attribute to the correct year.

<u>Time</u>. Any format; regular or military time.

Diagnosis Date. Date of lab or clinical confirmation.

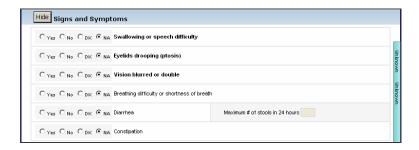
<u>Illness Duration</u>. Course of illness (in days) from the date of onset to the subsiding of symptoms.

Note: For mumps cases, the duration of parotitis in this field would be pertinent as it is critical for case definition.

E. Signs and Symptoms

Select the "Show" button to open up this section. This section is disease-specific so will be different for each disease/condition. The symptoms that are case-defining data elements for the disease are in bold type. Throughout the forms, you will find that most of the questions will have four answer options: yes, no, DK (unknown to case), and NA (Not Asked or Not Answered). Below is just an example of the fields for foodborne botulism.

As you are entering information on signs and symptoms, there may be an observation sub-detail on the right side of the screen that is requesting more specific information. For enterics, you will see that if the case did experience diarrhea, there will be an additional field requesting information on the maximum number of stools in 24 hours. For other conditions, if the symptoms include fever, there may be fields on the right side of the screen requesting information on highest measured temperature. Always view the entire screen for entering additional information.



Note: Discrete onset of symptoms for acute Hepatitis A, B, and C requires a "Yes" response for CDC case definition.

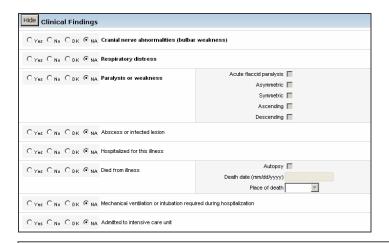
F. Pre-Disposing Condition

This section includes disease-specific questions that correspond to the disease-specific form. For some conditions, such as enterics, this section is intentionally empty as no questions are associated with the condition.



G. Clinical Findings

This section includes disease-specific questions that correspond to the disease-specific form.

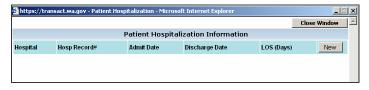


Note: In the case of pertussis, the question on pneumonia and x-ray may lead to some confusion. The first part of the question asks if the case was clinically diagnosed with pneumonia. The second part of the question asks the results of an x-ray to confirm the pneumonia or lack thereof.

Diagnosis of Pneumonia	X-Ray Result	Interpretation		
Not asked/Not answered or Case Didn't Know	Should be left blank	No information was available for this observation.		
"Yes" for having pneumonia	Response options: P (positive), O (other), I (Indeterminate) or NT (not tested)	Doctor diagnosed pneumonia, and x-ray positive or test result was O, I, or NT.		
"No" for not having pneumonia	Response options: N (negative), O (other), I (Indeterminate) or NT (not tested)	No doctor diagnosed pneumonia and x-ray was negative or test result was O, I, or NT.		

H. Hospitalization

Enter the most recent one first. Multiple entries can be made and will be sorted by date of admission. Click on the "New" button.



For each hospitalization, a new entry will need to be entered by pressing the "Save" and then the "New" button.



<u>Hospital</u>. A hospital can be selected from the dropdown list. If the hospital is not in the list, then it can be entered into the "Other" field. If you select "Other," a field will open up for entering a hospital name. The PHIMS programming staff will routinely update the hospital list as needed.

Hospital Record #. Generated by hospital.

Admit Date. Date the case was admitted to the hospital.

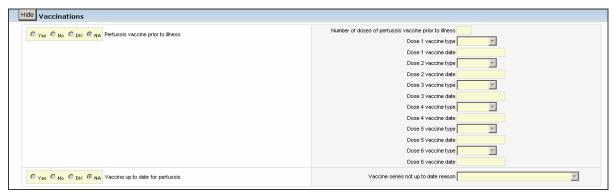
Discharge Date. Date the case was discharged from the hospital.

<u>Length of Stay (LOS in Days)</u>. The total number of days the case was hospitalized. This is critical information, especially for some conditions (e.g. pertussis). Please be as thorough as possible in completing the data entry.

Save the entry and click on "new" for additional entries or close the window when completed.

I. Vaccinations

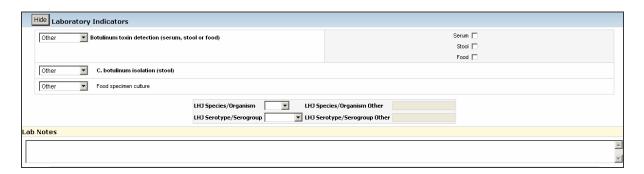
Vaccination questions will only be asked for vaccine-preventable diseases. On other diseases, it will state that this section is intentionally empty and that no questions associated with it apply to that case. The vaccinations section varies for the different vaccine preventable diseases. The one for pertussis is presented below. Enter the number of doses of vaccine. If no vaccine was administered, put in "0". For this particular disease, the type of vaccination is also asked. You can select that from the dropdown menu. The date of that vaccination is also an important field in assessing the case. It becomes critical to collect as much vaccination information as possible on all cases, regardless of age, to facilitate the lab result interpretation and to assess vaccine effectiveness.



J. Laboratory Indicators

The laboratory section on the Data Entry screen allows information to be entered for test results and a separate screen called Lab Results for information on specimen type and date of collection of the specimen. The investigator should consult the guidelines on the Notifiable Conditions website for specific information on laboratory indicators by disease. Also, if a serotype is entered, please be sure that the correct laboratory indicator is selected. Below is a table of lab result options and their definitions. For the laboratory indicators, select "Not Tested" if the lab test was not performed, not "Other".

Test Result	Definition
Positive	Tested, result positive
Negative	Tested, result negative
Indeterminate	Tested, result was indeterminate (from lab)
Not Tested	Investigator has information that one of the following applies: specimen not taken; specimen lost; not testable; inappropriate for testing
Other	Any other, e.g. unknown if tested; tested but result can't be found; no information; pending



Note: For Enterohemorraghic E. coli (EHEC) the laboratory criteria state that the lab test should entail the isolation of EHEC 0157:H7 from a specimen **or** isolation of Shiga toxin-producing E. coli from a clinical specimen.

Note: Occasionally for salmonella, a PFGE is entered, but no indicator is indicated.

Lab Results Section

Go to Lab Results page under the section dropdown menu (see arrow below) to add additional information on the type of specimen collected and the date of collection. Click on "New Spec" to add information on the specimen.



New Specimen

<u>Specimen Type</u>. Selection from the dropdown menu includes food, stool, serum, and other. Buccal, which is collected for mumps cases, is not an option and can be entered as "Other" and the type can be indicated in the "Specimen Type Other" field.

Collection Date. The date (MM/DD/YYY) the specimen was collected from the case.

Accession Number. ID assigned to the specimen by a private lab.

Party. Case name.

<u>WSPHL Specimen ID</u>. ID assigned to the specimen by the Washington State Public Health Laboratory.

Were antibiotic resistance tests performed? To assist in selecting treatment options.

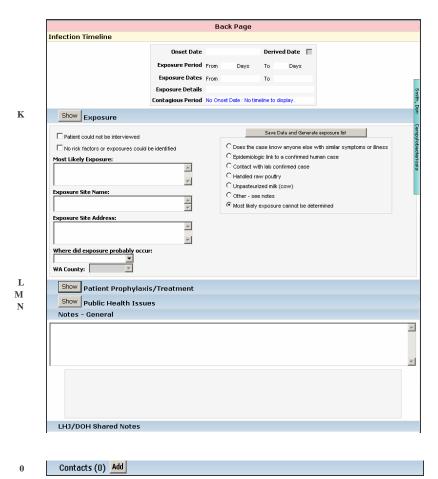
Lab Results Notes Section

This is where any lab-related information that is pertinent to the case is recorded. When the note is saved, it will appear at the top of the screen, tracked by date/time and investigator that entered the note. An example of something you could enter into lab notes would be "Organism may be resistant to fluoroquinolones."

Then open the section dropdown menu to return to the Data Entry screen.

Note: Information on the lab results need to be answered in the lab field, not written in the lab notes section.

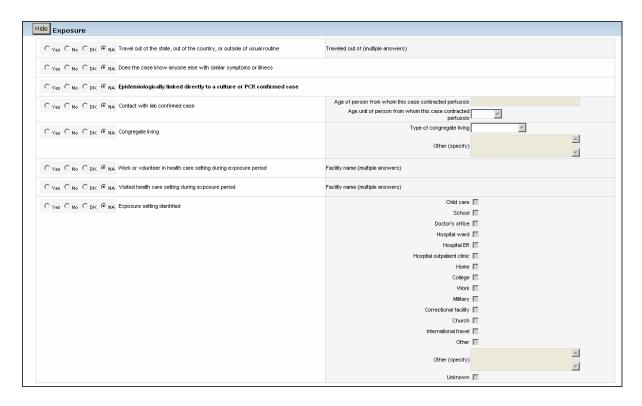




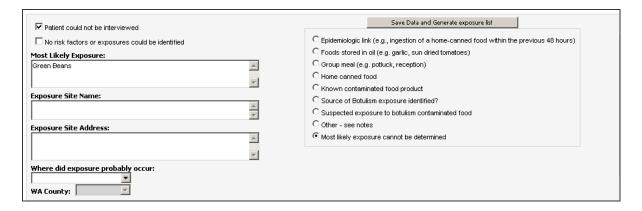
The back page (above) corresponds to the back page of the case reporting form. The infection timeline, seen at the top of the back page, is automatically calculated from the onset date that is entered for the case. The contagious period for the disease is displayed.

K. Exposure

Exposure variables such as travel out of the county, state or country, or have contact with a foreign arrival, animal or pet exposure, knowing anyone with similar symptoms, eating at restaurants or in group meals, consumption of possible or known food products or water that are associated with the disease condition, contact with a lab-confirmed case, congregate living, and outdoor or recreational activities are some of the common questions asked in this section. There are also more disease-specific questions that may be asked. One case-defining question that is asked for most conditions is any epidemiologic link to a confirmed case. Below is an example of the exposure section for the mumps.



Once the Exposure Section is completed, you should save the data (as shown below) and generate an exposure list. Once the data is saved, the "Yes" responses from the Exposure Section above will appear as a Most Likely Exposure option list on the right side of the screen. You must save after the most recent data entry change in the exposure section to update the option list. This is a new feature of PHIMS 3.0 on the Data Entry screen. From the list on the right side, it would be best to select one that is the most likely exposure. If it is unknown, click on the last button stating that the exposure cannot be determined. If the exposure is something other than what the options offer, select "Other" from the list on the right side of the screen and enter the most likely exposure in the text box on the left side of the screen. For analysis purposes, the response from the list would be very helpful information. Below is an example for botulism.



L. Patient Prophylaxis/Treatment

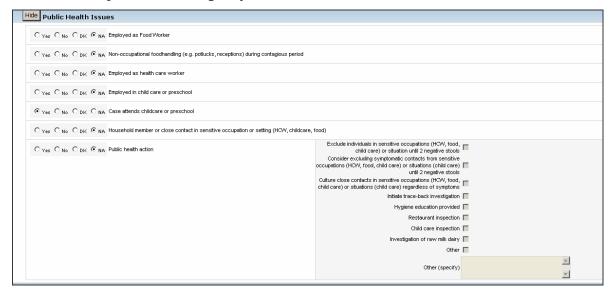
For diseases where prophylaxis or treatment would be prescribed, this section allows the investigator to enter up to two antibiotics administered to the case. The name of the antibiotic, the

date the treatment began, and the number of days the antibiotic was taken can be entered. For diseases where treatment through antibiotics would not normally be prescribed, the section will state "This section is intentionally empty; no questions associated with it apply to your case."



M. Public Health Issues

This section pertains to issues that may be of pubic health concern in terms of further exposure and risk for disease transmission. Prevention mechanisms and education efforts would be implemented to halt further transmission. Risk factors, such as employment as a food or health care worker or in a child care or preschool setting may be cause for concern with some of the communicable diseases.



N. Notes Section

Notes are entered above the summary text box. Note summary text box is scrollable; it displays the most recent note at the top with name of the person who entered the note and the time and date of the entry.

General Notes. These notes are not visible to DOH.

<u>Shared Notes</u>. Both the LHJ and DOH can enter notes into this section and view this section. These are the *only* notes that will be viewed by DOH. To share information with DOH that is relevant to the case, it must be entered into this Shared Notes Section. This section can be used for entering information that is not captured in any other field on the Data Entry screen. It is not meant to substitute for responses in other sections. It would also be helpful if investigators could provide their name and contact information in this Shared Notes Section for permitting correspondence between the LHJ investigator and the DOH reviewer.

View Notes

To view all the notes, go to the Notes Section from the dropdown box at the top of the screen. PHIMS displays a list of all note categories in a vertical column on the left side of the screen. To the left of each listed category is a notes icon. Clicking on an icon will open up that particular Notes Section. When a note is saved to a Notes Section, the appearance of this icon will change from "o" to indicate that a note has been entered for that section.

The name of the person who entered the note and the date and time the note was entered are also displayed. A note that is saved to one section can be copied and pasted into another Notes Section by highlighting the text, copying it (control>c) and pasting it (control>v) to the new Notes Section. Once entered, notes **cannot** be overwritten or erased. Errors must be addressed by adding subsequent notes.

O. Contacts

This is another pop-up window to enter demographic and contact information on contacts of the case. Information on whether the contact was symptomatic or required treatment will also be collected. Additional contacts can be entered by clicking on "New."

DOH will only know the number of contacts; they will not be able to view the contact information. Any information that was collected in the previous version of PHIMS, but is no longer collected, will be put into the contact note during data migration.



Editing a Case

One of the most important steps in case entry is making sure that information like classification and status is correct and up-to-date. When you first enter a case, confirmatory lab results or other case-defining information may not be available and you might enter the case as "suspect." You will want to have standard business practices in place at your agency to ensure that case classification information is updated as new information is received. You can select the case you wish to modify by clicking on the case ID.

Reporting a Case to DOH

Once you have completed data entry for the case, enter a completion date and then change the investigation status to "Complete." PHIMS has an automatic reporting feature that is based on disease reporting requirements for LHJs as outlined in the Washington Administrative Code (WAC) 246-101 (http://www.doh.wa.gov/notify/other/legal.htm). However, cases can also be reported manually at any time. To manually report a case, the investigator can press the "Report Now" button on the Data Entry screen and the case will be immediately sent to DOH.

Automatic Case Reporting

- 1. <u>Immediate Reporting</u>. For conditions like cholera or botulism that are *immediately notifiable* to DOH per the WAC requirements, cases are automatically reported within minutes of initiating the case. This applies to cases that are classified as *suspect*, *probable* or *confirmed*.
- 2. <u>At seven days</u>. Once the Investigation Status is changed from "Investigation in Progress" to "Complete," "Unable to Complete," or "In Progress but CDC Reportable," the case will automatically be reported to DOH seven days after assignment of one of these case status options.
- 3. At 21 days. Two dependencies determine automatic reporting
 - a. The Case Status remains "Investigation in Progress" 21 days after the date of LHJ notification, AND
 - b. The LHJ Classification is set to a condition specific value to include: Confirmed, Probable or Suspect.
- 4. <u>Manual Reporting</u>. Cases can be reported manually at any time, regardless of case status or classification by clicking the "Report Now" button.

IV. DOH REVIEW

Below the Shared Notes Section is the DOH Information Section where DOH reviews the case and only DOH can make changes. Once the case becomes visible to DOH, it shows up on the Case Action screen of a DOH Communicable Disease epidemiologist for review. The epidemiologist will review the case and assign a DOH case classification. If the DOH case classification differs from the LHJ case classification, an email message is sent to the LHJ investigator notifying them of the discrepancy. The epidemiologist will also enter information to the "DOH Review Notes" area that is viewable to the LHJ. DOH CD-Epi can also record laboratory information and notes in this section. This section can be viewed, but not edited, by the LHJ.

V. PROCESS OF SENDING CASES TO CDC

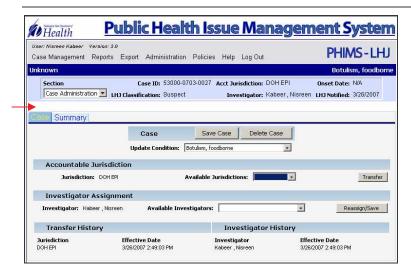
Sending cases to CDC is the function of the Data Compiler. When the epidemiologist assigns a DOH Case Classification to the case that is in agreement with the LHJ classification, it can be removed from the case action screen and is ready to go to CDC. The record will show up on the Data Compiler's Case Action screen with a visibility reason of "Review for CDC." The Data Compiler can open the record and if it meets the criteria (e.g. correct age calculation and condition classification) for going to CDC, the button "Add to CDC Queue" will be clicked.

The CDC Queue Management screen is accessible to the Data Compiler for checking which cases are being sent to CDC. Records that are not ready to be sent or are duplicates may be removed. Once the records have been verified, the CDC batch file is created for exporting the data to CDC.

Records that have been changed by the LHJ or DOH will show up with the visibility reason of "Changed" and may have some significant changes made to it. If this case has already been sent to CDC or has a DOH case classification, the DOH case classification is removed and the DOH review status returns to "Not Reviewed." The case then needs to be reviewed again and reassigned a DOH case classification based on the changes. If the DOH case classification does not agree with the LHJ

classification, the LHJ will receive an email notification. Once the DOH and LHJ are in agreement, the case will then be resent to CDC.

VI. CASE ADMINISTRATION



Delete a Case

Only those assigned a supervisor role in PHIMS can delete a case.

Note: The PHIMS application does a "soft delete," which is the equivalent of the approved method for a deletion in a paper record – drawing a single line through erroneous information and initialing the correction. Information that is deleted in PHIMS is retained in the database and marked as deleted (with a record of the user and date and time of deletion). The deleted information will not appear in ordinary displays but can still be retrieved for audit purposes by individuals with appropriate authorization. For a list of cases deleted within your LHJ, a "Transfer and Delete" report is available. The report is located within the "Case Management Reports."

Change Condition Type

You can also change the condition on this screen. For example, if you started out with a case report of hemolytic uremic syndrome and then received lab results that confirmed an *E. coli* infection, you would choose E. coli enterohemorrhagic from the Update Condition dropdown list. Demographic information already entered on the case and all "like" observations will transfer to the new condition. For example, if both conditions include an observation "Fever," the (Y, N, DK) answer will be retained. Click "Save Case" to save the update.

Transfer a Case

To transfer a case to another jurisdiction, just select from the Available Jurisdictions dropdown list of counties and then click Transfer. When you transfer a case, always notify both the LHJ you are transferring the case to and the Data Compiler at DOH to ensure that the case doesn't fall through the cracks. For instance, if the case was reported to one LHJ, but the case resided in another LHJ, the case **should** be transferred. Both Transfer History and Investigator History are displayed at the bottom of the screen.

Reassign a Case to Another Investigator in Your LHJ

A case can also be reassigned to another investigator within your LHJ. Once reassigned, this case will no longer be active to your account and will disappear from your Case Action screen. The case can still be retrieved using the "Find Case" function under the Case Management tab on the main menu bar. Again, the investigator can be selected from the Available Investigators dropdown menu. Then click Reassign. Notify the investigator that a case has been reassigned to them so they are aware of it.

VII. REPORTS



Administrative Reports

Administrative reports are utilized by the PHIMS Administration, which is the Office of Informatics. An "Audit Report" is available to view who has accessed a case. The "Security Report" is useful to verify a user's access to the PHIMS system. These reports can also be used by the LHJs.

Individual Cases

Individual Case Reports display information entered on individual cases. To view all the information on a particular case, enter the case ID number, select "View Case," and submit the report. Another type of Individual Case report is the Contact Line List, which displays information on all the contacts for a selected case. The same process applies to this submitting this report. When Report Submitted appears on the screen, click on View Reports.

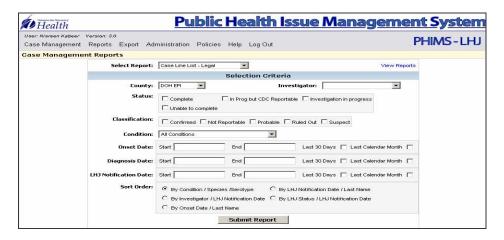


This will bring you to the "View Requested Reports" window where all the reports that have been submitted will be in queue. Click on the "Refresh" button until you see "Completed" under the queue status. A large report may take longer to process. Once completed, your "View Case" report should appear in the window below. The report most recently submitted will appear at the top of the list. Double click on the report name and click on "Open" at the File Download window to open the report (you also have the option to save it).

If you are not able to open the report, it may be that your computer is set up to block pop-ups. You will need to over-ride the pop-up blocker in order to access your report. To over-ride pop-up blocker and access your report, hold down the control (Ctrl) key before you click on the report name. Continue holding down the Ctrl key while you click on the "Open" button and then release.

Case Management Reports

The Case Management reports allow you to get an overview of your cases or your agency's cases, as well as any actions performed on them (e.g. transferred or deleted). There are several types of Case Management reports: Case Line List-Legal, Case Line List-Letter, Transfer and Delete, Field Reconciliation Reports, Timeliness Report, LHJ Workload Summary Reports, and Animal Bite Report.



A. Case Line List Reports

There are two versions of this report, the "Legal" (with more variables and printed on legal size paper) and the "Letter" (fewer variables and printed on letter size paper). Selection criteria include County, Investigator, Case Status, Case Classification, Disease Condition, and Date. You can choose from Onset Date, Diagnosis Date, and LHJ Notification Date. You can choose a starting and ending date or select the following options: "Last 30 Days," which displays the current date and back 30 days, or "Last Calendar Month," which displays the month *prior to* the current month. You can sort by Condition/Species/Serotype, Investigator/LHJ Notification Date, Onset Date/Last Name, LHJ Notification Date/Last Name, or LHJ Status/LHJ Notification Date.

Then click on the Submit Report button. The report should appear with the title CaseLineListLetter or CaseLineListLegal. The first page of the report will state the criteria used to select the data and the second page will present the line list requested. Every third case is highlighted in gray for easier viewing. The title is listed above along with the run date, time and user. The case information headers are Condition, Investigator, Patient Name, Birth Date, Zip Code, LHJ Classification, Onset Date, and LHJ Notification Date.

B. Transfer and Delete Report

This report lists all of the cases that have been transferred or deleted in PHIMS. The criteria used to filter the data are County, Investigator, Investigation Status, Case Classification, Condition, and LHJ Notification Date. Onset Date and Diagnosis Date filters are displayed, but are disabled.

The transferred case list will show from which county it was transferred, to which county, the date of the transfer, by whom it was transferred, the patient name, the Issue (Condition), Notify Date and the Case ID. The deleted case list will present information on which county deleted the case, the date of deletion, by whom it was deleted, patient name, Issue (Condition), Notify Date, and the Case ID. Totals are listed at the bottom of each list.

C. Field Reconciliation Reports

This is an exception report that compares LHJ and DOH variables (i.e., classification, serotype, species). If there is a mismatch between LHJ and DOH information in any one of these fields, a line is written on the report. This is also true if a field is left blank. Running and reviewing this report is a good way to keep this important information updated and accurate.

D. Timeliness Report

Average (days) is calculated between the LHJ Notification Date and the listed date (onset date, diagnosis date, DOH visibility date, LHJ case complete date).

The only search criteria for this report are county and LHJ notification date.

E. LHJ Workload Summary Reports

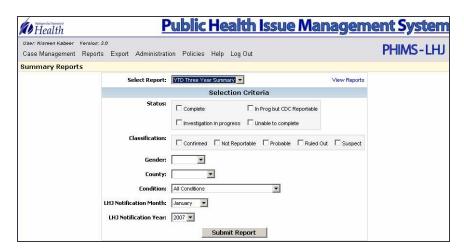
This report lists, by investigator and condition, a count of assigned and closed cases.

F. Animal Bite Report

This report is a new feature of PHIMS 3.0. It provides the following information: case ID, exposure date, animal type, description, breed, whether the exposure was provoked, owner/location, owner/location address, and owner/location phone.

G. Summary (Aggregate Data) Reports

Summary Reports are aggregate data reports from all the cases in PHIMS. There are two types of summary reports: the "Year-To-Date (YTD) Three Year Summary" and the "Monthly Summary by Year." With both of these summary reports, the first page displays the criteria that were selected and the second page displays the data.



H. YTD Three-Year Summary Report

This is a report summarizing data from cases for a three-year period prior to and including the LHJ notification month/year that you select. The cases displayed in this report are based on the LHJ Notification month and year. For example, if you want to look at Salmonella cases for three years up to March 2006, you would choose March for the month and 2006 for the year. It would give you the total cases from January through March for each of the three years and the total cases for each of the two completed years.

If you don't select a county, a report will be generated but no results will be listed and the columns will be blank. Optional selection criteria include Status (can select more than one option), Classification (can select more than one option), and Gender. Ignore Condition since this report gives you a summary of all conditions. To reduce downloading time when creating reports, enter sufficient selection criteria to limit the number of records you retrieve.

Keep in mind that because it is summary data and lacks individual case identifier information, the resulting data is not limited by your security access. You have access to aggregate data for all of the cases currently in the PHIMS system.

Note: Where no selection is made, by default all results for that category will be displayed.

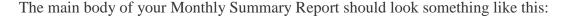
The first page of your report displays your selection criteria. The main body of data starts on the second page and should look like the figure below. Notice that only some of the conditions are listed. Those conditions for which no cases were reported in the selected time frame will not show up on the YTD Three-Year Summary report.

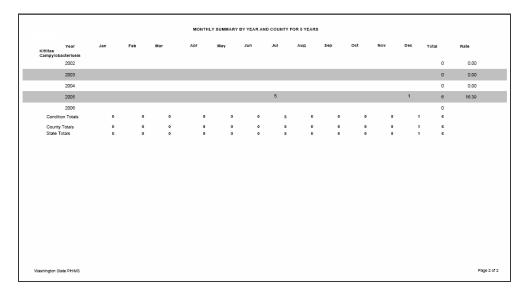
	Cases Reported in Jan			Cases Reported Jan through Jan		Total Cases Reported			
Condition	2007	2006	2005	2007	2006	2005	2006	2005	
Botulism, infant		1			1		1		
Campylobacteriosis							1		
3iardiasis			1			1		2	
Hepatitis B, chronic							1		
Hepatitis C, chronic		1			1		8		
Meningococcal disease									
Shigellosis								1	
otals	0	2	1	0	2	1	11	3	

I. Monthly Summary by Year

The Monthly Summary by Year report gives you monthly totals for all conditions for five consecutive years including the current year. The optional selection criteria for this report are the same as for the YTD Three-Year Summary report except that LHJ Notification Month and Year are not used with this report.

Note: If County or Condition is not specified, all counties and conditions are listed, thus creating an extremely large file. ALWAYS check the size of your file before printing. Then go into Print Setup and select the correct paper size, landscape orientation, etc.





VIII. EXPORTS

For conducting data analysis with PHIMS data, the Export function allows extraction of data on cases that you have permission to view. Exports are downloaded to a text file. From there they can be imported easily into Excel or a number of other software programs for analysis.

Warning...information stored in PHIMS is protected through encryption and the PHIMS security system. The data is not encrypted when it is exported. **Protecting electronic data becomes your responsibility once you've exported it**.

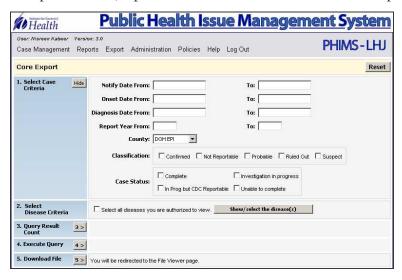
Core Exports

The Core Export allows export of case data for any combination of conditions. On the Export screen you can choose which cases are exported by selecting Case Criteria and Disease Criteria. Case criteria include general information such as county, time frame for cases (based on Notification, Onset or Diagnosis Date), case classification and case status. If the dates are left blank, cases from all dates will be included. Only one county can be selected at a time. For classification and case

status, you can check multiple boxes. Disease criteria will list all the diseases that you are authorized to view. By clicking the first checkbox you can choose all the diseases you are authorized to view or you can select one or more specific diseases from the list. To get all of your cases, don't select a date range, classification, or case status – leave these fields blank. This single flat file export includes the basic identifying and demographic information about a case regardless of disease/condition. See Appendix 2 for data dictionary.

The Query Result Count will notify you of how many records will be returned for those selected criteria. If the count is agreeable, the query can be executed and the file will be downloaded. You will be redirected to the File Viewer page to view the file. Click on the file name, LHJCoreExport, to open it. The data export will open up as a text file that you can then import into most data analysis software programs (including Excel, Access, EpiInfo).

There are several ways to download your data into an Excel spreadsheet. The simplest is to highlight all of the data (right-click mouse and choose Select All) and copy it (right-click mouse and choose Copy). Then, open up a new Excel spreadsheet and paste into the left uppermost box on the spreadsheet (to paste, click on "Paste" from the file dropdown menu).



Note: There are some issues you should be aware of regarding dates in the database. When the old data from before PHIMS was transferred from the ComDis database into PHIMS, many cases lacked the LHJ Notification Date. In those cases where there was no Notification Date, an artificial date was plugged in to the Notify Date field. The date that was plugged into that field if it was empty was 1/1/1901. Please do keep this in mind when considering data analysis using cases that predated PHIMS. Many LHJs had the DOH PHIMS programming staff of the Informatics Office update this date by request of their epidemiologist.

Also, Onset Date and Diagnosis Date were not required fields in PHIMS until now for version 3.0.

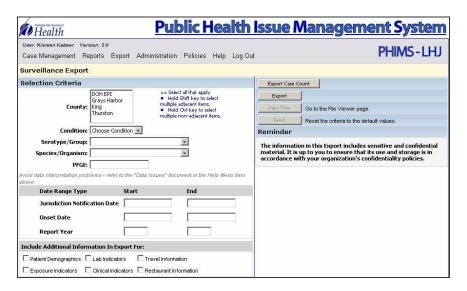
Surveillance Export

The Surveillance Export allows export of case data by disease condition and one or more specific areas of interest (e.g. exposures, lab specimens) for more in-depth data analysis. Only one condition

can be selected at a time. Onset Date and Report Year have been added to the criteria. You may select multiple counties if security allows.

The Surveillance Extract was originally designed for outbreak investigation and allows you to focus on one disease condition for more in-depth analysis of one or more specific areas (e.g. lab results, exposures). In addition, you can filter by subtype for some organisms (e.g. salmonella). Select one or more of the specific data areas (e.g. Lab Indicators) for which you would like additional information to analyze.

As with the Core Export, the Surveillance Extract is downloaded to a text file. From there it can be imported easily into Excel or any one of a number of other software programs for analysis. See Appendix 3 and 4 for data dictionary and observation detail data dictionary, respectively.



IX. VIEW AND DELETE REPORTS AND EXPORTS

View List of Reports and Exports

All reports and exports created in PHIMS appear on the same view page. Any time you want to return to the listing of your reports and exports, you can click on Reports or Exports from the main menu bar and select View Requested Reports or Exports, respectively.

Delete reports and exports

Export and report files are automatically deleted after seven days.

CAUTION: Clicking the delete button on the View Requested Reports (or View Requested Exports) screen deletes <u>ALL</u> of the Reports and Exports that you have created (except for those still being processed). *Currently there is no mechanism to delete individual files!!!*

Evaluation of PHIMS 3.0 User's Manual: "Using PHIMS 3.0: Step-by-Step Guide to Entering and Managing Communicable Disease Data"

Date:		
County:		
Name (optional):		
1) Are you a new PHIMS user?	Yes	No
2) If not, how long have you been entering case information into PHIMS?	< 1 year	>1 year
3) Did you find this user's manual:a) Comprehensive.b) Easy to follow.c) Informative.d) Useful.	1 2 3 1 2 3	4 5 4 5
4) How many staff members in your LHJ are responsible for data entry into PHIMS 3.0?		
5) Would you be interested in participating in a training seminar for PHIMS 3.0?	Yes	No
6) What additional information would you like to see is	n this manu	ual?
7) Are there any features of PHIMS 3.0 that you are ha	ving probl	ems with?
Thank you for your feedback.	auniachla I	Disassa Enidamiala av
Please complete and fax this evaluation to DOH, Comp	nunicable I	Disease Epidemiology.

Fax number: (206) 418-5515 Attention: Nisreen Kabeer